# **Cobden Drinking Water System**

Waterworks # 220001218
System Category – Large Municipal Residential

# **Annual Water Report**

Prepared For: The Township of Whitewater Region

Reporting Period of January 1st – December 31st 2024

Issued: February 25th, 2025

Revision: 0

Operating Authority:



This report has been prepared to satisfy the annual reporting requirements in O.Reg 170/03 Section 11 and Schedule 22

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### **Report Availability**

The annual report will be available to residents at the Township of Whitewater Region's Municipal Office and copies provided free of charge if requested. The Township of Whitewater Region's Municipal Office is located at, 44 Main Street, Cobden, Ontario.

There are no additional drinking water systems that receive water from this facility.

### **Compliance Report Card**

Compliance Event	# of Events
Ministry of Environment Inspections	1 MECP Inspections on June 26 <sup>th</sup> 2024 with a rating of 100%
Ministry of Labour Inspections	0
QEMS External Audit	1 Reaccreditation Audit completed on April 16th 2024 by Intertek - SAI Global. No major or minor non-conformances were identified.
AWQI's/BWA	3 AWQI – See Summary of Non-Compliance for Details / 0
Non-Compliance	2 - See Summary of Non-Compliance for Details
Community Complaints	17
Spills	0
Watermain Breaks	1 – See Distribution Maintenance for Details

# **System Process Description**

#### **Raw Source**

The Cobden water treatment plant receives raw water from Muskrat Lake. The intake for the water treatment plant consists of a 300 mm diameter pipe located approximately 12.2 m below the water surface, and is equipped with polyethylene lines for seasonal potassium permanganate dosing for zebra mussel and manganese control and for raw water sampling. Water flows by gravity from the intake structure and enters two interconnected intake wet wells with a total volume of 70 m<sup>3</sup>. Two vertical turbine low lift pumps convey water into the treatment system. A flow meter is installed on the low lift discharge header to allow accurate monitoring of water takings.

#### **Treatment**

The Cobden water treatment plant uses chemically assisted filtration to treat the raw water before disinfection occurs. Similar to the intake crib, potassium permanganate is added seasonally at the raw

water discharge header for additional manganese control. Raw water leaving the wet wells is injected with the coagulant, PAS-8 and the coagulant aid, Superfloc polymer and is then mixed via an inline static mixer. The Cobden water treatment plant consists of an Ecodyne Package Unit and Corix Treatment Unit. Flow is directed to one treatment unit at a time. The unit's both feature a tank for coagulation and flocculation. This tank has a mixer to facilitate the process. The next stage is sedimentation. The sedimentation tank utilizes tube settlers to allow the floc to settle. Clarified water off the top of the tank is collected in troughs and distributed to the two-cell dual media (sand/anthracite) gravity filters. A common underdrain collects filter effluent from both cells, and a continuous online turbidimeter monitors each of the filters effluent turbidity.

Sodium hypochlorite is injected into the filtered water prior to entering a dual-celled baffled clearwell with total volume of 187 m<sup>3</sup>. The cleawell provides sufficient contact time to meet primary disinfection. Water flows from the clearwell by two high lift pumps into the distribution system. Sodium hypochlorite is injected into the water again before travelling to the distribution system.

Process wastewater is directed to a wastewater tank and discharged to the sanitary sewer. The supernatant chamber which discharges to the lake is no longer in use.

#### **Distribution**

The Cobden Distribution System is a Class 1 Distribution System that serves a population of approximately 1000. The distribution system includes 9.2 km of watermain, 61 fire hydrants, and a 900 m³ elevated water storage tank located at 44 Gould Street. Four sample stations are available on Simmons Drive, Ross Street, Main Street and Morrison Drive to facilitate distribution sampling and provide adequate chlorine residuals in the distributed water.

#### <u>Treatment Chemicals used during the reporting year:</u>

Chemical Name	Use	Supplier
PAS-8	Coagulation & Flocculation	Kemira
Superfloc 492PWG	Coagulant Aid (Polymer)	Kemira
Sodium Hypochlorite (12%)	Disinfection	Brenntag
Potassium Permanganate (granular 97.5%)	Zebra Mussel and Manganese Control	Cariox via Brenntag

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# **Summary of Non-Compliance**

### **Adverse Water Quality Incidents**

Date	AWQI#	Location	Problem	Details	Legislation	Corrective Action Taken
07/16/2024	165668	3 Simmons Drive	Microbiological results detected	Result of 18 CFU/100 mL Total Coliform (TC)	O.Reg 169/03	Resample Upstream, 3 Simmons and Downstream all results of 0 CFU/100 mL TC
09/05/2024	166220	Raw Water Header	Coagulant feed failure	Failed due to faulty chemical pump check valve for 6 hours and 46 minutes	O.Reg 170/03	Faulty pump removed from service to repair, restored coagulant injection with second pump
09/30/2024	166590	Distribution System	THM RAA MAC exceedance	THM RAA of 103.17 ug/L	O.Reg 169/03	Sampling monthly, adjusted treatment process

## Non-Compliance

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
PTTW #P-300- 1175250711	Exceeded PTTW Maximum Flow Rate of 947 L/min max flow rate was 1375 L/min	23/09/2024 from 9:14:20-9:21:30	The reported exceedance occurred on pump start up, the pump was shut down, upon restart was reading within compliance	Complete
PTTW #P-300- 1175250711	Exceeded PTTW Maximum Flow Rate of 947 L/min, max flow rate was 1020 L/min	03/12/2024 from 10:26:50-10:29:41	The exceedance was due to running the low lift pump in manual in an attempt to reset a filter #1 fault. The pump was put back into auto operation.	Complete

### **Non-Compliance Identified in a Ministry Inspection:**

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status

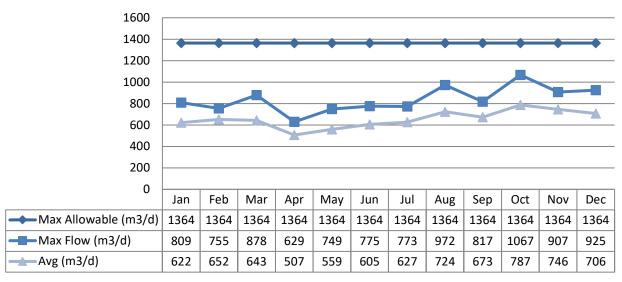
#### **Flows**

#### **Raw Water Flows**

The Raw Water flows are regulated under the Permit to Take Water. 2024 Raw Flow Data was submitted to the Ministry electronically under permit #P-300-1175250711. The confirmations that the data was submitted are attached in Appendix A.

#### **Total Monthly Flows**

#### Max Allowable PTTW



#### **Maximum Flow Rates**

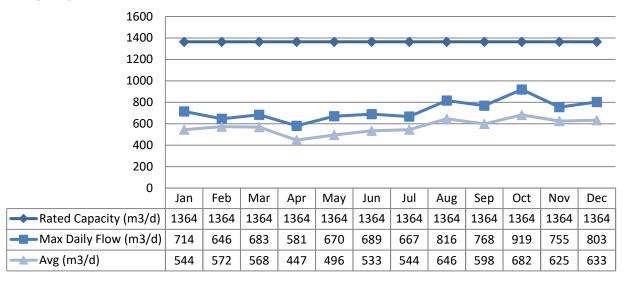
Maximum allowable flow rates are reviewed as part of the 72 hour review. Any spikes in flow rate that were above max allowable rate were identified during low lift pump start up and lasted less than a minute. Events under a minute are not reportable as a PTTW exceedance. Any exceedances that were over a minute and were reportable are noted under the summary of non-compliance section of this report.

#### **Treated Water Flows**

The Treated Water flows are regulated under the Municipal Drinking Water Licence.

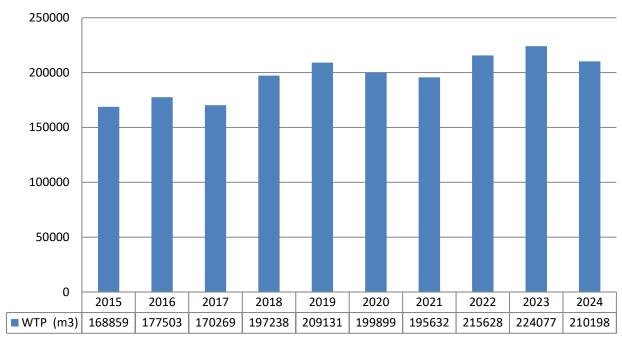
#### **Monthly Rated Flows**

#### Rated Capacity - MDWL



#### <u>Annual Total Flow Comparison</u>

#### Total Annual m3



### **Regulatory Sample Results Summary**

#### **Microbiological Testing**

	No. of Samples Collected	Range of E.Coli Results		Range of Total Coliform Results		Range of HPC Results	
	Collected	Min	Max	Min	Max	Min	Max
Raw Water	53	0	54	0	64	N/A	N/A
Treated Water	53	0	0	0	0	0	29
Distribution Water	115	0	0	0	18	0	46

#### **Operational Testing**

	No. of Samples	Range of	Results
	Collected	Minimum	Maximum
Turbidity, In-House (NTU) - RW	232	0.17	12.8
Turbidity, In-House (NTU) - TW	186	0.10	0.90
Turbidity, On-Line (NTU) - TW	8760	0.11	0.90
Turbidity, On-Line (NTU) - Filter 1	8760	0.00	4.20
Turbidity, On-Line (NTU) - Filter 2	8760	0.00	2.00
Highlift Free Chlorine Residual, On-Line (mg/L) - TW	8760	0.61	2.54
Free Chlorine Residual, In House (mg/L) - DW	369	0.09	2.19

NOTE: spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O.Reg 170/03

#### **Inorganic Parameters**

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every 60 months. Nitrate and Nitrite are tested quarterly and metals are tested annually as required under O. Reg. 170/03. In the event any parameter exceeds half the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- <MDL = Less than Method Detection Limit</li>

	Comple Date			No. of Exce	eedances
	Sample Date (yyyy/mm/dd)	Sample Result	MAC	MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2024/01/09	<mdl 0.6<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No
Arsenic: As (ug/L) - TW	2024/01/09	<mdl 0.2<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Barium: Ba (ug/L) - TW	2024/01/09	28.8	1000.0	No	No
Boron: B (ug/L) - TW	2024/01/09	11.0	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2024/01/09	<mdl 0.003<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Chromium: Cr (ug/L) - TW	2024/01/09	<mdl 0.08<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Mercury: Hg (ug/L) - TW	2024/01/09	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Selenium: Se (ug/L) - TW	2024/01/09	<mdl 0.04<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Uranium: U (ug/L) - TW	2024/01/09	0.28	20.0	No	No
Additional Inorganics					·

	Comple Date			No. of Exce	eedances
	Sample Date (yyyy/mm/dd)	Sample Result	MAC	NO	1/2 MAC
Nitrite (mg/L) - TW	2024/01/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2024/04/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2024/07/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2024/10/08	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrate (mg/L) - TW	2024/01/09	0.285	10.0	No	No
Nitrate (mg/L) - TW	2024/04/09	0.301	10.0	No	No
Nitrate (mg/L) - TW	2024/07/09	0.260	10.0	No	No
Nitrate (mg/L) - TW	2024/10/08	0.035	10.0	No	No
Fluoride (mg/L) - TW	2024/01/09	0.11	1.5	No	No
Sodium: Na (mg/L) - TW	2024/01/09	17.4	20*	No	Yes

<sup>\*</sup>There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified mg/L when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

#### **Schedule 15 Sampling:**

The Schedule 15 Sampling is required under O.Reg 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of	Number of	Range of	Results	MAC	Number of	
Distribution system	Sampling Points	Samples	Minimum	Maximum	(ug/L)	Exceedances	
Alkalinity (mg/L)	2	4	106	112	N/A	N/A	
рН	2	4	7.43	7.57	N/A	N/A	
Lead (ug/L)	2	4	0.03	0.08	10	0	

#### **Organic Parameters**

These parameters are tested annually as a requirement under O. Reg. 170/03. In the event any parameter exceeds half the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- <MDL = Less than Method Detection Limit

	Sample Date	Sample Result	MAC	Numb Exceed	
	(yyyy/mm/dd)	Sample Result	IVIAC	MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2024/01/09	<mdl 0.02<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2024/01/09	0.02	5.0	No	No
Azinphos-methyl (ug/L) - TW	2024/01/09	<mdl 0.05<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Benzene (ug/L) - TW	2024/01/09	<mdl 0.32<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Benzo(a)pyrene (ug/L) - TW	2024/01/09	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Bromoxynil (ug/L) - TW	2024/01/09	<mdl 0.33<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Carbaryl (ug/L) - TW	2024/01/09	<mdl 0.05<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbofuran (ug/L) - TW	2024/01/09	<mdl 0.01<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbon Tetrachloride (ug/L) - TW	2024/01/09	<mdl 0.17<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No

	Sample Date	Sample Result	MAC	Numb Exceed	
	(yyyy/mm/dd)	Sample Result	IVIAC	MAC	1/2 MAC
Chlorpyrifos (ug/L) - TW	2024/01/09	<mdl 0.02<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Diazinon (ug/L) - TW	2024/01/09	<mdl 0.02<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Dicamba (ug/L) - TW	2024/01/09	<mdl 0.2<="" td=""><td>120.0</td><td>No</td><td>No</td></mdl>	120.0	No	No
1,2-Dichlorobenzene (ug/L) - TW	2024/01/09	<mdl 0.41<="" td=""><td>200.0</td><td>No</td><td>No</td></mdl>	200.0	No	No
1,4-Dichlorobenzene (ug/L) - TW	2024/01/09	<mdl 0.36<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
1,2-Dichloroethane (ug/L) - TW	2024/01/09	<mdl 0.35<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
1,1-Dichloroethylene (ug/L) - TW	2024/01/09	<mdl 0.33<="" td=""><td>14.0</td><td>No</td><td>No</td></mdl>	14.0	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2024/01/09	<mdl 0.35<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
2,4-Dichlorophenol (ug/L) - TW	2024/01/09	<mdl 0.15<="" td=""><td>900.0</td><td>No</td><td>No</td></mdl>	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2024/01/09	<mdl 0.19<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
Diclofop-methyl (ug/L) - TW	2024/01/09	<mdl 0.4<="" td=""><td>9.0</td><td>No</td><td>No</td></mdl>	9.0	No	No
Dimethoate (ug/L) - TW	2024/01/09	<mdl 0.06<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Diquat (ug/L) - TW	2024/01/09	<mdl 1.0<="" td=""><td>70.0</td><td>No</td><td>No</td></mdl>	70.0	No	No
Diuron (ug/L) - TW	2024/01/09	<mdl 0.03<="" td=""><td>150.0</td><td>No</td><td>No</td></mdl>	150.0	No	No
Glyphosate (ug/L) - TW	2024/01/09	<mdl 1.0<="" td=""><td>280.0</td><td>No</td><td>No</td></mdl>	280.0	No	No
Malathion (ug/L) - TW	2024/01/09	<mdl 0.02<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Metolachlor (ug/L) - TW	2024/01/09	0.01	50.0	No	No
Metribuzin (ug/L) - TW	2024/01/09	<mdl 0.02<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2024/01/09	<mdl 0.3<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
Paraquat (ug/L) - TW	2024/01/09	<mdl 1.0<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
PCB (ug/L) - TW	2024/01/09	<mdl 0.04<="" td=""><td>3.0</td><td>No</td><td>No</td></mdl>	3.0	No	No
Pentachlorophenol (ug/L) - TW	2024/01/09	<mdl 0.15<="" td=""><td>60.0</td><td>No</td><td>No</td></mdl>	60.0	No	No
Phorate (ug/L) - TW	2024/01/09	<mdl 0.01<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No
Picloram (ug/L) - TW	2024/01/09	<mdl 1.0<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Prometryne (ug/L) - TW	2024/01/09	<mdl 0.03<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Simazine (ug/L) - TW	2024/01/09	<mdl 0.01<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Terbufos (ug/L) - TW	2024/01/09	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Tetrachloroethylene (ug/L) - TW	2024/01/09	<mdl 0.35<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2024/01/09	<mdl 0.2<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
Triallate (ug/L) - TW	2024/01/09	<mdl 0.01<="" td=""><td>230.0</td><td>No</td><td>No</td></mdl>	230.0	No	No
Trichloroethylene (ug/L) - TW	2024/01/09	<mdl 0.44<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2024/01/09	<mdl 0.25<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW	2024/01/09	<mdl 0.12<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
Trifluralin (ug/L) - TW	2024/01/09	<mdl 0.02<="" td=""><td>45.0</td><td>No</td><td>No</td></mdl>	45.0	No	No
Vinyl Chloride (ug/L) - TW	2024/01/09	<mdl 0.17<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No

Distribution samples are tested quarterly for THM's and HAA's in accordance with O. Reg. 170/03.

	Sample Year	Sample Result	MAC	Number of Exceedances		
	Sample real	Sample Result	IVIAC	MAC	1/2 MAC	
Distribution Water						
Trihalomethane (THM): Total (ug/L) – DW*	2024	99.5	100.0	No	Yes	
Haloacetic Acid (HAA): Total (ug/L) - DW*	2024	54.8	80.0	No	Yes	

<sup>\*</sup>Running Annual Average

MAC = Maximum Allowable Concentration as per O. Reg. 169/03

#### **Additional Legislated Samples**

Schedule C: System-Specific Conditions of Municipal Drinking Water License #203-202 requires the Cobden Drinking Water System to have a Harmful Algal Bloom (HAB) plan. Muskrat Lake, the raw water source for the Cobden DWS, has a known history of Blue-Green Algae blooms. The HAB plan is implemented when the source water has a history of blooms or a potential harmful algal bloom is suspected or present. The HAB plan requires Raw and Treated water be sampled on a weekly basis for Microsystin during the Harmful Algal Bloom season, which occurs from June 1st to October 31<sup>st</sup> of each year.

	No. of Samples	Range of Results		
	Collected Minimum N			
Microcystin (ug/L) - RW	25	<mdl 0.1<="" td=""><td><mdl 0.1<="" td=""></mdl></td></mdl>	<mdl 0.1<="" td=""></mdl>	
Microcystin (ug/L) - TW	25	<mdl 0.1<="" td=""><td><mdl 0.1<="" td=""></mdl></td></mdl>	<mdl 0.1<="" td=""></mdl>	

<sup>&</sup>lt;MDL = Less than Method Detection Limit

Schedule C: System-Specific Conditions of Municipal Drinking Water License #203-202 requires the Cobden Drinking Water System to monitor the effluent discharged to the natural environment. It should be noted that the backwash effluent directly discharges to the sanitary sewer to be processed at the Cobden Wastewater Treatment Plant not the natural environment, and as such the effluent was not sampled on a quarterly basis in 2024.

Legal Document	Date of Issuance	Parameter	Limit (mg/L)	Result (mg/L)
MDWL #203-202	24-Sept-2020	Backwash Effluent Suspended Solids	Annual Average < 25 mg/L	N/A
MDWL #203-202	24-Sept-2020	Backwash Effluent Total Chlorine Residual	Annual Average < 0.02 mg/L	N/A

# **Major Maintenance Summary**

	WO #	Description
3	8847465	Gas heater maintenance
3	3952862	Backwash sludge tank cleaned and inspected

<sup>&</sup>lt;MDL = Less than Method Detection Limit

WO #	Description
4048237	Purchase stock distribution parts for repairs as required
4048743	Replaced flow sensor on post filter chlorine pump #2
4093026	Raw water flow meter maintenance, removed from service and cleaned
4094938	Purchased replacement pump kits for chemical dosing pumps
4095176	Installed replacement pribusin telephone line protector for Tower communication
4145756	Purchased distribution continuous chlorine analyzer
4192263	Purchased replacement bench top pH probe for laboratory analysis
4197039	PAS-8 bulk tanks cleaned and inspected
4193787	PAS-8 bulk tanks gaskets replaced
4236680	Purchased replacement hose for distribution flushing
4278348	SCADA/PLC programming for filter #1 backwash sequence
4279956	SCADA/PLC programming for backwash pump
4281288	SCADA/PLC programming for filter #1 turbidity analyzer

## **Distribution Maintenance**

Date	Location Reference	Category	Details
01/21/2024	46 John Street	1	One 6" repair band installed, OIC on site, air gap maintained, all parts disinfected with 12% sodium hypochlorite. Flushing post repair.
04/16/2024	Entire System	N/A	Spring flushing program
09/26/2024	9 Crawford Street	N/A	Extended curb stop stand post to ground level
10/18/2024	Entire System	N/A	Fall flushing program
10/31/2024	7 Main Street	1	Repaired hydrant, removed bonnet, cleaned rust and greased.
11/04/2024	24 Ross Street	N/A	Defective hydrant replaced. Flushing post repair.

# **Summary of Complaints**

Location	Date	Nature of Complaint	Actions Taken
18 Truelove Street	04/18/2024	Service leak	Contacted by resident who stated area has sunk slightly over time, no water visible in area or increased flows from facility

Location	Date	Nature of Complaint	Actions Taken		
14 Creamery Road	05/24/2024	Odour	Odour not particular to one tap, collected sample, advised residence to flush cold water		
6 Main Street	08/04/2024	Coloured water	after periods of low use  Coloured water cleared after resident ran cold  water		
39 Pembroke Street	08/07/2024	Coloured water	Coloured water cleared after resident ran cold water		
39 Pembroke Street	08/13/2024	Coloured water	Advised resident to flush cold water until colour cleared		
23 Gould Street	08/14/2024	Coloured water	Advised resident to flush cold water until colour cleared		
21 Crawford Street	08/16/2024	Coloured water	Advised resident to flush cold water until colour was clear, advised resident of hydrant flushing in the area		
9 Dixon Street	08/19/2024	Coloured water	Advised resident to flush cold water until colour was clear, provided information to resident of process of reporting adverse results and access to annual reports on township's website		
49 Pembroke Street	08/19/2024	Coloured water	Advised Lakeview Dental Office to flush cold water until colour was clear, hydrant flushing in the area to remove settled manganese		
39 Pembroke Street	08/20/2024	Coloured water	Advised resident to flush cold water until colour was clear, hydrant flushing in the area to remove settled manganese		
20 Crawford Street	08/20/2024	Coloured water	Advised resident to flush cold water until colour was clear, hydrant flushing in the area to remove settled manganese		
3 Ross Street	08/20/2024	Coloured water	Advised resident to flush cold water until colour was clear, hydrant flushing in the area to remove settled manganese		
12 Wren Drive	08/21/2024	Coloured water	Township advised Caressant Care Nursing Home to flush cold water until colour was clear		
6 Main Street	09/06/2024	Coloured water	Advised resident to flush cold water until colour was clear		
14 Meadow Street	10/17/2024	Coloured water	Advised resident to flush cold water until colour was clear, hydrant flushing in the area to remove settled manganese		
28 Astrolabe Road	10/17/2024	Coloured water	Advised resident to flush cold water until colour was clear, hydrant flushing in the area to remove settled manganese		
49 Pembroke Street	11/26/2024	Coloured water	Advised Lakeview Dental Office to flush col water until colour was clear, flushed hydrant Cowley and Highway 17 to remove colour		

# **Appendix A**

**RSRS Data and Submission Confirmation** 



# Regulatory Self-Reporting System

# Ministry of the Environment, Conservation and Parks

Client Name: THE CORPORATION OF THE TOWNSHIP OF WHITEWATER REGION Reporting Year: 2024 Service: PTTW Permit Number: P-300-1175250711 Permit

Version: 1.0 New or Updated Submission: NEW

Site Name: Cobden Water Treatment Plant

Source ID: 500000637197 Source Name: Muskrat Lake Source Type: Lake

UTM(Zone/Easting/Northing): 18/353658.0/5055621.0 Method of Determination: Metered Unit of Measure: Litre

**Description:** Muskrat Lake **Purpose Category:** Utilities **Specific Category:** Municipal Supply **Activity:** Water Supply

Description:	: Muskrat La	ake Pur	pose Category:	Utilities	Specific Categ	<b>jory:</b> Municipal S	Supply	Activity: Water	Supply			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	618000.0	611000.0	636000.0	576000.0	506000.0	640000.0	527000.0	855000.0	669000.0	606400.0	731000.0	607800.0
2	595000.0	647000.0	655000.0	575000.0	440000.0	714000.0	529000.0	855000.0	636000.0	944100.0	696000.0	637100.0
3	656000.0	669000.0	667000.0	540000.0	561000.0	636000.0	537000.0	875000.0	616000.0	805900.0	696000.0	652700.0
4	655000.0	611000.0	626000.0	491000.0	601000.0	774000.0	569000.0	684000.0	730000.0	783300.0	696000.0	791000.0
5	761000.0	684000.0	665000.0	589000.0	521000.0	763000.0	734000.0	873000.0	792000.0	781800.0	748000.0	633000.0
6	564000.0	667000.0	729000.0	505000.0	485000.0	775000.0	632000.0	775000.0	681000.0	808100.0	907000.0	688800.0
7	658000.0	655000.0	697000.0	518000.0	500000.0	566000.0	545000.0	777000.0	732000.0	831600.0	809000.0	662000.0
8	615000.0	653000.0	653000.0	476000.0	514000.0	500000.0	652000.0	491000.0	664000.0	687500.0	864000.0	667000.0
9	809000.0	683000.0	610000.0	551000.0	566000.0	538000.0	544000.0	476000.0	603000.0	764900.0	697800.0	681400.0
10	547000.0	628000.0	684000.0	559000.0	475000.0	529000.0	679000.0	724000.0	817000.0	717000.0	679000.0	667000.0
11	638000.0	755000.0	664000.0	502000.0	563000.0	471000.0	541000.0	555000.0	668000.0	706400.0	708400.0	701000.0
12	553000.0	696000.0	671000.0	459000.0	446000.0	577000.0	514000.0	567000.0	678000.0	705500.0	708400.0	709200.0
13	605000.0	650000.0	690000.0	474000.0	516000.0	667000.0	673000.0	599000.0	681000.0	690600.0	794800.0	732200.0
14	527000.0	655000.0	712000.0	497000.0	478000.0	540000.0	616000.0	707000.0	733000.0	631400.0	723000.0	679500.0
15	556000.0	631000.0	715000.0	447000.0	597000.0	511000.0	630000.0	843000.0	768000.0	708000.0	723000.0	677400.0
16	612000.0	673000.0	658000.0	447000.0	648000.0	529000.0	749000.0	843000.0	733000.0	722700.0	583800.0	624000.0
17	552000.0	633000.0	587000.0	471000.0	567000.0	729000.0	588000.0	692000.0	768000.0	834500.0	694800.0	838500.0
18	674000.0	609000.0	692000.0	594000.0	516000.0	650000.0	718000.0	663000.0	711000.0	723400.0	841100.0	690000.0
19	587000.0	638000.0	702000.0	629000.0	617000.0	699000.0	645000.0	560000.0	631000.0	793800.0	858600.0	666300.0
20	626000.0	620000.0	614000.0	450000.0	666000.0	762000.0	597000.0	972000.0	678000.0	743000.0	737000.0	775400.0
21	709000.0	657000.0	657000.0	549000.0	749000.0	609000.0	587000.0	782000.0	605000.0	815900.0	846400.0	733000.0
22	753000.0	618000.0	680000.0	408000.0	554000.0	665000.0	537000.0	666000.0	571000.0	1004000.0	804000.0	725900.0
23	607000.0	668000.0	606000.0	485000.0	554000.0	524000.0	722000.0	656000.0	594000.0	1067000.0	804000.0	707000.0
24	606000.0	631000.0	564000.0	502000.0	583000.0	526000.0	718000.0	837000.0	654000.0	1042700.0	771000.0	716000.0
25	615000.0	613000.0	569000.0	478000.0	681000.0	503000.0	578000.0	621000.0	648000.0	895600.0	811000.0	656500.0
26	631000.0	624000.0	516000.0	492000.0	572000.0	554000.0	646000.0	807000.0	653000.0	781300.0	682000.0	689500.0
27	578000.0	620000.0	878000.0	480000.0	735000.0	603000.0	690000.0	695000.0	631000.0	719400.0	736000.0	672700.0
28	613000.0	704000.0	616000.0	557000.0	455000.0	539000.0	607000.0	766000.0	649000.0	794000.0	703000.0	628300.0
29	609000.0	706000.0	503000.0	391000.0	531000.0	527000.0	700000.0	663000.0	591000.0	759400.0	713000.0	759200.0
30	523000.0		498000.0	506000.0	544000.0	527000.0	773000.0	770000.0	611000.0	742200.0	604000.0	925200.0
31	638000.0		525000.0		601000.0		646000.0	784000.0		783800.0		905500.0

Name of Attester First Name: Kaylee

Last Name: Saar

Company: Ontario Clean Water Agency

Date Certified/Submitted(yyyy/mm/dd): 2025/02/24